Europäisches Patentamt

**European Patent Office** 

Office europé n d s brevets



EP 0 904 996 A1

## **EUROPEAN PATENT APPLICATION**

(43) Date of publication: 31.03.1999 Bulletin 1999/13

(21) Application number: 98118355.1

(22) Date of filing: 28.09.1998

(51) Int. Cl.<sup>6</sup>: **B60R 25/04**, F02P 11/04. F02P 1/08

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

**Designated Extension States:** AL LT LV MK RO SI

(30) Priority: 30.09.1997 IT TO970861

(71) Applicant: MAGNETI MARELLI S.p.A. 20145 Milano (IT)

(72) Inventors:

 Aussello, Mauro 10138 Verolengo (Torino) (IT)

 Bagnuoli, Gualtiero 10152 Torino (IT)

(11)

· Vigano, William 15040 Lu Monferrato (Alessandria) (IT)

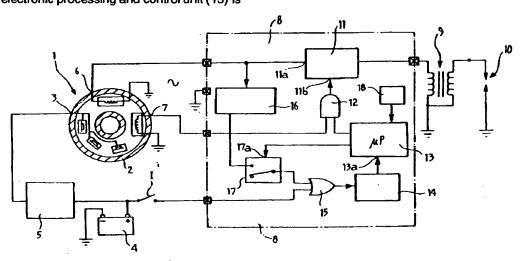
(74) Representative:

Quinterno, Giuseppe et al c/o JACOBACCI & PERANI S.p.A. Corso Regio Parco, 27 10152 Torino (IT)

## An ignition system with an immobilization function for a motor vehicle with a (54)magnetoelectric generator

The ignition system comprises an ignition coil (9) connected to a plug (10), and a capacitive-discharge ignition circuit (11) connected to the coil (9) and having a supply input (11a) connected to an output (6) of the generator (1) and a control input (11b) connected to another, third output (7) of the generator (1) which supplies a signal indicative of the rate of rotation of the engine. An electronic processing and control unit (13) is

connected to the control input (11b) of the ignition circuit (11) and to a device (18) for acquiring signals emitted by a transponder connected thereto. The control unit (13) is arranged to permit control and operation of the ignition circuit (11) in order to start the engine only if the signals received by the acquisition device (18) contain a predetermined code.



EP 0 904 996 A1

nected to the third output (7) of the generator (1),

an electronic processing and control unit (13) connected to the control input (11b) of the ignition circuit (11), and

a supply device (14) which can supply a supply voltage to the electronic unit (13) and which has an input connected to the output of a voltage pre-regulator (16), which in turn is connected to the second output (6) of the generator (1),

the system being characterized in that it further 15 comprises:

a device (18) for acquiring signals emitted by a transponder connected thereto, the device (18) being connected to the processing and control 20 unit (13),

an enabling device (12) interposed between the third output (7) of the generator (1) and the control input (11b) of the ignition circuit (11) and controlled by the electronic processing and control unit (13),

and in that the input of the supply device (14) can be connected to the battery (4) to enable the processing and control unit (13) to be supplied when the engine or generator is switched off, and is connected to the voltage pre-regulator (16) by means of a switch (17) controlled by the unit (13),

the unit (13) being arranged to cause the control and operation of the ignition circuit (11) to be permitted, by means of the enabling device (12), in order to start the engine, only if the signal received by the acquisition device (18) contains a predetermined code and, when the engine has been started, to cause the supply device (14) to be connected to the pre-regulator by means of the switch (17).

50

25

35

55

## EP 0 904 996 A1



## **EUROPEAN SEARCH REPORT**

EP 98 11 8355

	DOCUMENTS CONSIDER		T	<del> </del>
ategory	Citation of document with indica of relevant passages		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.6)
A	FR 2 616 392 A (PERNE ;MORTHA MICHEL (FR); PATRIC) 16 December 1 * abstract; figures 1	DUBOIS DUNILLAC 988	1	B60R25/04 F02P11/04 F02P1/08
A	PATENT ABSTRACTS OF J vol. 013, no. 545 (M- & JP 01 224474 A (MI CORP), 7 September 19 * abstract *	902), 6 December 1989 TSUBISHI ELECTRIC	1	
A	US 4 980 680 A (KNOLL 25 December 1990 * abstract; figure 1		1	
A	US 4 380 225 A (WESEM 19 April 1983 * abstract; figure 1	-	1	
A	PATENT ABSTRACTS OF J vol. 095, no. 006, 31 & JP 07 069174 A (SU LTD;OTHERS: 01), 14 M * abstract *	July 1995 MITOMO ELECTRIC IND	1	TECHNICAL FIELDS SEARCHED (Int.CI.6) B60R F02P
				,
	·	·		
	The present search report has been	n drawn up for all claims		
	Place of search	Date of completion of the search	· ·	Examiner
	THE HAGUE	24 November 1998	Fuc	chs, P
X : part Y : part doc A : tecl	ATEGORY OF CITED DOCUMENTS  ticularly relevant if taken alone ticularly relevant if combined with another ument of the same category hnological background rewritten disclosure	T: theory or principle E: earlier patent doc after the filing dat D: document cited in L: document cited fo	ument, but publication or other reasons	ished on, or

5